Integrace racionálních funkcí

1) $\int \frac{x^3 - 2x + 1}{x^2} dx$ $\left[\frac{1}{2} x^2 - 2 \ln|x| - \frac{1}{x} + c \right]$

2) $\int \frac{2x}{x^2 - 6x + 5} dx$ $\left[\frac{5}{2} \ln|x-5| - \frac{1}{2} \ln|x-1| + c \right]$

3) $\int \frac{1}{x^2 - 4x + 6} dx$ $\left[\frac{1}{\sqrt{2}} arctg \frac{x-2}{\sqrt{2}} + c \right]$

4) $\int \frac{3x + 4}{x^2 + 2x + 2} dx$ $\left[\frac{3}{2} \ln|x^2 + 2x + 2| + arctg(x+1) + c \right]$

5) $\int \frac{3x + 5}{x^2 - 3x - 4} dx$ $\left[\frac{17}{5} \ln|x-4| - \frac{2}{5} \ln|x+1| + c \right]$

6) $\int \frac{x - 1}{2x - 1} dx$ $\left[\frac{x}{2} - \frac{1}{4} \ln|2x-1| + c \right]$

7) $\int \frac{x^2 - 3}{x^2 + 8x + 12} dx$ $\left[x - \frac{33}{4} \ln|x+6| + \frac{1}{4} \ln|x+2| + c \right]$

8) $\int \frac{2x + 1}{x^2 - 6x + 12} dx$ $\left[\ln|x^2 - 6x + 12| + \frac{7}{\sqrt{3}} arctg \frac{x-3}{\sqrt{3}} + c \right]$

9) $\int \frac{x^3 + 3}{x^2 - 3x} dx$ $\left[\frac{1}{2} x^2 + 3x + 10 \ln|x-3| - \ln|x| + c \right]$

10) $\int \frac{x}{x^2 + 3x + 3} dx$ $\left[\frac{1}{2} \ln|x^2 + 3x + 3| - \sqrt{3} arctg \frac{2x+3}{\sqrt{3}} + c \right]$